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PTO/SB/82 (11-96)

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Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## REVOCATION OF POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

Application Number	09/734,969
Filing Date	December 12, 2000
First Named Inventor	Yongfei Zhu et al
Group Art Unit	2817
Examiner Name	Stephen E. Jones
Attorney Docket Number	283014-00025

I hereby revoke all previous powers of attorney or authorizations of agent given in the above-identified application:

☒ A Power of Attorney or Authorization of Agent is submitted herewith.

AND

☒ Please change the correspondence address for the above-identified application to:

☐ Customer Number 27512 →

**\*27512\***

OR

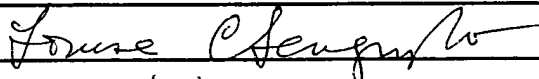
<input checked="" type="checkbox"/> Firm or Individual Name	William J. Tucker					PATENT TRADEMARK OFFICE	
Address	8650 Southwestern Blvd. #2825						
Address							
City	Dallas						
Country	USA	State	TX	ZIP	75206		
Telephone	(214) 368-4978	Fax	(214) 368-4978				

I am the:

☐ Applicant.

☒ Assignee of record of the entire interest  
*Certificate under 37 CFR 3.73(b) is enclosed*

### SIGNATURE of Applicant or Assignee of Record

Name	Louise C. Sengupta, President Paratek Microwave, Inc.
Signature	
Date	7/17/02

**Burden Hour Statement:** This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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PTO/SB/81 (10-00)

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

Application Number	09/734,969
Filing Date	December 12, 2000
First Named Inventor	Yongfei Zhu et al
Group Art Unit	2817
Examiner Name	Stephen E. Jones
Attorney Docket Number	283014-00025

I hereby appoint:

☒ Practitioners at Customer Number

27512

**\*27512\***

27512

AND

☒ Practitioner(s) named below:

Name	Registration Number
James S. Finn	38,450
Donald D. Mondul	29,957
Michael N. Haynes	40,014

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

OR

☒ Firm or  
Individual Name

William J. Tucker

Address 8650 Southwestern Blvd. #2825

Address

City Dallas

State TX

Zip 75206

Country USA

Telephone (214) 368-4978

Fax (214) 368-4978

I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

### SIGNATURE of Applicant or Assignee of Record

Name

Louise C. Sengupta, President, Paratek Microwave, Inc.

Signature

*Louise C. Sengupta*

Date

7/17/02

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☐ Total of \_\_\_\_\_ forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

**CERTIFICATE UNDER 37 CFR 3.73(b)**Applicant: Yongfei Zhu et alApplication No.: 09/734,969 Filed: December 12, 2000**ELECTRONIC TUNABLE FILTERS WITH DIELECTRIC VARACTORS**

Entitled: \_\_\_\_\_

Paratek Microwave, Inc., a Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of either:

- A.
- ☒
- An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B.
- ☐
- A chain of title from the inventor(s), of the patent application identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.☐ Additional documents in the chain of title are listed on a supplemental sheet.☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

7/17/02

Date

Louise C. Sengupta  
SignatureLouise C. Sengupta

Typed or printed name

President, Paratek Microwave, Inc.

Title

## ASSIGNMENT

WHEREAS, WE, **YONGFEI ZHU**, residing at 5275 Rivendell Lane, Suite 6, Columbia, MD 21044, a citizen of China, and **LOUISE C. SENGUPTA**, residing at 12 New Haven Boulevard, Warwick, MD 21912, a citizen of the United States of America, respectively, have invented certain improvements in: **ELECTRONIC TUNABLE FILTERS WITH DIELECTRIC VARACTORS** which is described in United States Patent Application Serial No. 09/734,969 which was filed on December 12, 2000; and

WHEREAS, **PARATEK MICROWAVE, INC.**, a corporation organized and existing under the laws of the State of <sup>Delaware</sup> ~~Maryland~~, having its principal place of business at 6935 Oakland Mills Road, Suite N, Columbia, MD 21045, is desirous of acquiring an interest therein;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we hereby acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals, and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of the said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use, or vend the said inventions or improvements or any of them, and that we have the full right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to

us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal, and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors, and/or assigns, as the case may be, of said assignee.

Executed on this 27<sup>th</sup> day of February, 2001

Yongfei Zhu  
YONGFEI ZHU  
Louise C. Sengupta  
LOUISE C. SENGUPTA

State of Maryland :  
County of Howard : ss.

Before me, a Notary Public in and for the said County and State, personally appeared YONGFEI ZHU and LOUISE C. SENGUPTA who acknowledged that they are the persons who executed the foregoing assignment and acknowledged it to be their free and voluntary act and deed.

Witness my hand and notarial seal this 27<sup>th</sup> day of February, 2001.

Richard Cowling  
Notary Public

(NOTARIAL SEAL)

Exp. 12/2/03

Please type a plus sign (+) inside this box → ☐

PTO/SB/01 (12-97)  
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<b>DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)</b>  <input type="checkbox"/> Declaration Submitted with Initial Filing      OR <input checked="" type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)	Attorney Docket Number	283014-00025
	First Named Inventor	Yongfei Zhu
	<b>COMPLETE IF KNOWN</b>	
	Application Number	09 / 734,969
	Filing Date	December 12, 2000
	Group Art Unit	
Examiner Name		

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**ELECTRONIC TUNABLE FILTERS WITH DIELECTRIC VARACTORS**

the specification of which (Title of the Invention)

☐ is attached hereto  
OR  
☒ was filed on (MM/DD/YYYY) **12/12/00** as United States Application Number or PCT International Application Number **09/734,969** and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)

☐ Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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## DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

☒ Customer Number **003705**

OR

☐ Registered practitioner(s) name/registration number listed below

Place Customer Number Bar Code Label here

Name	Registration Number	Name	Registration Number

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto.

Direct all correspondence to: ☒ Customer Number or Bar Code Label **003705** OR ☐ Correspondence address below

Name	Robert P. Lenart						
Address	Eckert Seamans Cherin & Mellott, LLC						
Address	600 Grant Street, 44th Floor						
City	Pittsburgh	State	PA	ZIP	15219		
Country	USA	Telephone	(412) 566-1252		Fax	(412) 566-6099	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor: ☐ A petition has been filed for this unsigned inventor

Given Name (first and middle (if any))	Family Name or Surname
Yongfei	Zhu

Inventor's Signature	<i>Yongfei Zhu</i>				Date	1/12/01	
Residence: City	Columbia	State	MD	Country	USA	Citizenship	CHINA

Post Office Address	5275 Rivendell Lane, Suite 6						
City	Columbia	State	MD	ZIP	21044	Country	USA

☒ Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto

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PTO/SB/02A (3-97)  
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<b>DECLARATION</b>	<b>ADDITIONAL INVENTOR(S)</b> <b>Supplemental Sheet</b> Page <u>1</u> of <u>1</u>
--------------------	---

<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Sengupta				Louise C.			
Inventor's Signature	<i>Louise C Sengupta</i>					Date	1/12/01
Residence: City	Warwick	State	MD	Country	USA	Citizenship	USA
Post Office Address							
Post Office Address	12 New Haven Boulevard						
City	Warwick	State	MD	ZIP	21912	Country	USA
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Inventor's Signature						Date	
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor					
Given Name (first and middle [if any])				Family Name or Surname			
Inventor's Signature						Date	
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	

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+

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U.S. Patent and Trademark Office

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To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Yongfei ZHU  
Louise C. SENGUPTA

2. Name and address of receiving party(ies)

Name: PARATEK MICROWAVE, INC.

Internal Address: \_\_\_\_\_

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Street Address: 6935 Oakland Mills Road

Suite N

City: Columbia State: MD Zip: 21045

Execution Date: 02/27/01

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s) 09/734,969

B. Patent No.(s) \_\_\_\_\_

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Michael N. Haynes

Internal Address: \_\_\_\_\_

Street Address: 1341 Huntersfield Close

City: Keswick State: VA Zip: 22947

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41).....\$ 40.00

- ☒ Enclosed  
☐ Authorized to be charged to deposit account

8. Deposit account number:

50-1481

**DO NOT USE THIS SPACE**

9. Signature.

Michael N. Haynes

Name of Person Signing

  
Signature

October 28, 2002

Date

Total number of pages including cover sheet, attachments, and documents: 9

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231



UNITED STATES  
PATENT AND  
TRADEMARK OFFICE

FEBRUARY 24, 2003

PTAS

Under Secretary of Commerce For Intellectual Property and  
Director of the United States Patent and Trademark Office  
Washington, DC 20231  
www.uspto.gov

MICHAEL N. HAYNES  
1341 HUNTERSFIELD CLOSE  
KESWICK, VA 22947



\*102269824A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 10/28/2002

REEL/FRAME: 013436/0138  
NUMBER OF PAGES: 6

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
ZHU, YONGFEI

DOC DATE: 02/27/2001

ASSIGNOR:  
SENGUPTA, LOUISE C.

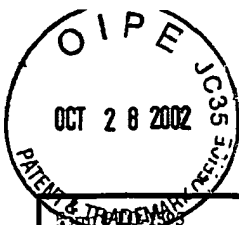
DOC DATE: 02/27/2001

ASSIGNEE:  
PARATEK MICROWAVE, INC.  
6935 OAKLAND MILLS ROAD  
SUITE N  
COLUMBIA, MARYLAND 21045

SERIAL NUMBER: 09734969  
PATENT NUMBER:

FILING DATE: 12/12/2000  
ISSUE DATE:

SHARON LATIMER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



11-04-2002



102269824

U.S. DEPARTMENT OF COMMERCE  
U.S. Patent and Trademark Office

(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/2002)

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1. Name of conveying party(ies):

Yongfei ZHU

Louise C. SENGUPTA

2. Name and address of receiving party(ies)

Name: PARATEK MICROWAVE, INC.

Internal Address: \_\_\_\_\_

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:



Assignment



Merger



Security Agreement



Change of Name



Other \_\_\_\_\_

Street Address: 6935 Oakland Mills Road

Suite N

City: Columbia State: MD Zip: 21045

Execution Date: 02/27/01

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s) 09/734,969

B. Patent No.(s) \_\_\_\_\_

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Michael N. Haynes

Internal Address: \_\_\_\_\_

Street Address: 1341 Huntersfield Close

City: Keswick State: VA Zip: 22947

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41).....\$ 40.00



Enclosed



Authorized to be charged to deposit account

8. Deposit account number:

50-1481

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9. Signature.

Michael N. Haynes

Name of Person Signing

Signature

October 28, 2002

Date

Total number of pages including cover sheet, attachments, and documents: 9

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U.S. Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Yongfei ZHU  
Louise C. SENGUPTA

2-27-02

## 2. Name and address of receiving party(ies)

Name: PARATEK MICROWAVE, INC.

Internal Address: \_\_\_\_\_

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☐ Assignment ☐ Merger
- ☐ Security Agreement ☐ Change of Name
- ☒ Other Corrective document submission for assignment recorded at Reel/Frame 011718/0699.

Execution Date: \_\_\_\_\_

Street Address: 6935 Oakland Mills Road

Suite N

City: Columbia State: MD Zip: 21045

Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

09/734,969

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Robert P. LENART

Internal Address: Pietragallo, Bosick &amp; Gordon

Street Address: One Oxford Centre, 38th Floor

301 Grant Street

City: Pittsburgh State: PA Zip: 15219

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41).....\$ 40.00

☐ Enclosed☒ Authorized to be charged to deposit account

## 8. Deposit account number:

500859

(Attach duplicate copy of this page if paying by deposit account)

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## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Robert P. LENART

Name of Person Signing

Robert P. Lenart  
SignatureFeb. 15, 2002  
DateTotal number of pages including cover sheet, attachments, and documents: 6

03/28/2002 DBYRNE 00000124 500859 09/27/99

01 FC:581

40.00 CH

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FINANCE SECTION

## ASSIGNMENT

WHEREAS, WE, **YONGFEI ZHU**, residing at 5275 Rivendell Lane, Suite 6, Columbia, MD 21044, a citizen of China, and **LOUISE C. SENGUPTA**, residing at 12 New Haven Boulevard, Warwick, MD 21912, a citizen of the United States of America, respectively, have invented certain improvements in: **ELECTRONIC TUNABLE FILTERS WITH DIELECTRIC VARACTORS** which is described in United States Patent Application Serial No. 09/734,969 which was filed on December 12, 2000; and

WHEREAS, **PARATEK MICROWAVE, INC.**, a corporation organized and existing under the laws of the State of <sup>Delaware</sup> ~~Maryland~~, having its principal place of business at 6935 Oakland Mills Road, Suite N, Columbia, MD 21045, is desirous of acquiring an interest therein;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we hereby acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals, and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of the said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use, or vend the said inventions or improvements or any of them, and that we have the full right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to

us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal, and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors, and/or assigns, as the case may be, of said assignee.

Executed on this 27<sup>th</sup> day of February, 2001

Yongfei Zhu  
YONGFEI ZHU  
Louise C. Sengupta  
LOUISE C. SENGUPTA

State of Maryland :  
County of Howard : ss.

Before me, a Notary Public in and for the said County and State, personally appeared **YONGFEI ZHU** and **LOUISE C. SENGUPTA** who acknowledged that they are the persons who executed the foregoing assignment and acknowledged it to be their free and voluntary act and deed.

Witness my hand and notarial seal this 27<sup>th</sup> day of February, 2001.

Deborah Cowling  
Notary Public

(NOTARIAL SEAL)

Exp. 12/2/03

## ASSIGNMENT

WHEREAS, WE, **YONGFEI ZHU**, residing at 5275 Rivendell Lane, Suite 6, Columbia, MD 21044, a citizen of China, and **LOUISE C. SENGUPTA**, residing at 12 New Haven Boulevard, Warwick, MD 21912, a citizen of the United States of America, respectively, have invented certain improvements in: **ELECTRONIC TUNABLE FILTERS WITH DIELECTRIC VARACTORS** which is described in United States Patent Application Serial No. 09/734,969 which was filed on December 12, 2000; and

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UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

JULY 07, 2001

PTAS  
ECKERT SEAMANS CHERIN & MELLOTT, LLC  
ROBERT P. LENART  
600 GRANT STREET, 44TH FLOOR  
PITTSBURGH, PA 15219



\*101692

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NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

FD-503  
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THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/16/2001

REEL/FRAME: 011718/0699  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ZHU, YONGFEI

DOC DATE: 02/27/2001

ASSIGNOR:

SENGUPTA, LOUISE C.

DOC DATE: 02/27/2001

ASSIGNEE:

PARATEK MICROWAVE, INC.  
6935 OAKLAND MILLS ROAD, SUITE N  
COLUMBIA, MARYLAND 21045

SERIAL NUMBER: 09734969

FILING DATE: 12/12/2000

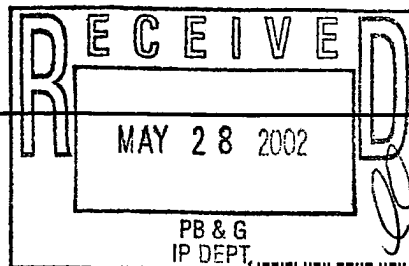
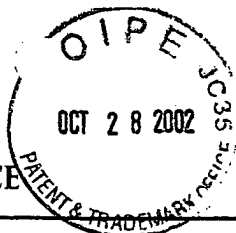
PATENT NUMBER:

ISSUE DATE:

KIMBERLY WHITE, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



UNITED STATES  
PATENT AND  
TRADEMARK OFFICE



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MAY 21, 2002

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ROBERT P. LENART  
ONE OXFORD CENTRE, 38TH FLOOR  
301 GRANT ST.  
PITTSBURGH, PA 15219

Chief Information Officer  
Washington, DC 20231  
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DOCUMENT ID NO.: 102036474

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THE ORIGINAL DATE OF FILING OF THIS ASSIGNMENT DOCUMENT WILL BE MAINTAINED IF RESUBMITTED WITH THE APPROPRIATE CORRECTION(S) WITHIN 30 DAYS FROM THE DATE OF THIS NOTICE AS OUTLINED UNDER 37 CFR 3.51. THE RESUBMITTED DOCUMENT MUST INCLUDE A STAMP WITH THE OFFICIAL DATE OF RECEIPT UNDER 37 CFR 3. APPLICANTS MAY USE THE CERTIFIED PROCEDURES UNDER 37 CFR 1.8 OR 1.10 FOR RESUBMISSION OF THE RETURNED PAPERS, IF THEY DESIRE TO HAVE THE BENEFIT OF THE DATE OF DEPOSIT IN THE UNITED STATES POSTAL SERVICE.

SEND DOCUMENTS TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231. IF YOU HAVE ANY QUESTIONS REGARDING THIS NOTICE, YOU MAY CONTACT THE INDIVIDUAL WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723.

1. THE COVER SHEET SUBMITTED TO CORRECT ERRORS IN THE PREVIOUSLY RECORDED DOCUMENT IS NOT ACCEPTABLE. TO CORRECT AN ERROR IN A RECORDED DOCUMENT, A CORRECTED COVER SHEET MUST BE ACCOMPANIED BY THE ORIGINALLY RECORDED DOCUMENT OR A COPY OF THE ORIGINALLY RECORDED DOCUMENT AND THE RECORDING FEE FOR THE CORRECTIONS AS SET FORTH IN 37 CFR 3.34.

SEDLEY PYNE, PARALEGAL

ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
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JUL 13 2001

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IP DEPT.

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DOC DATE: 02/27/2001

ASSIGNOR:  
SENGUPTA, LOUISE C.

DOC DATE: 02/27/2001

ASSIGNEE:  
PARATEK MICROWAVE, INC.  
6935 OAKLAND MILLS ROAD, SUITE N  
COLUMBIA, MARYLAND 21045

SERIAL NUMBER: 09734969  
PATENT NUMBER:

FILING DATE: 12/12/2000  
ISSUE DATE:

KIMBERLY WHITE, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

04-27-2001



101692421

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Patent and Trademark Office

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APR 16 2001

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TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type



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Resubmission (Non-Recordation)

Document ID#



Correction of PTO Error

Reel #

Frame #



Corrective Document

Reel #

Frame #

Conveyance Type



Assignment



Security Agreement



License



Change of Name



Merger



Other

U.S. Government

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Departmental File



Secret File

Conveying Party(ies)



Mark if additional names of conveying parties attached

Name (line 1)

YONGFEI ZHU

Execution Date  
Month Day Year

2/27/2001

Name (line 2)

Second Party

Name (line 1)

LOUISE C. SENGUPTA

Execution Date  
Month Day Year

2/27/2001

Name (line 2)

Receiving Party



Mark if additional names of receiving parties attached

Name (line 1)

PARATEK MICROWAVE, INC.

Name (line 2)

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Address (line 1)

6935 OAKLAND MILLS ROAD, SUITE N

Address (line 2)

Address (line 3)

COLUMBIA

MARYLAND

21045

City

State/Country

Zip Code

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

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Mail documents to be recorded with required cover sheet(s) information to:  
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

**Correspondent Name and Address**

Area Code and Telephone Number

412.566.1252

Name Robert P. Lenart

Address (line 1) Eckert Seamans Cherin & Mellott, LLC

Address (line 2) 600 Grant Street, 44th Floor

Address (line 3) Pittsburgh, PA 15219

Address (line 4)

**Pages**

Enter the total number of pages of the attached conveyance document including any attachments.

# 4

**Application Number(s) or Patent Number(s)**

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

**Patent Application Number(s)**

09/734,969

**Patent Number(s)**

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

**Patent Cooperation Treaty (PCT)**

Enter PCT application number

only if a U.S. Application Number has not been assigned.

PCT

PCT

PCT

PCT

PCT

PCT

**Number of Properties**

Enter the total number of properties involved.

# 1

**Fee Amount**

Fee Amount for Properties Listed (37 CFR 3.41): \$ 40.00

Method of Payment:  
Deposit Account

Enclosed ☒

Deposit Account ☐

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:

# 02-2556

Authorization to charge additional fees:

Yes

☒

No

☐

**Statement and Signature**

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.*

Robert P. Lenart

Robert P. Lenart

4/12/2001

Name of Person Signing

Signature

Date

## ASSIGNMENT

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Louise C. Sengupta  
LOUISE C. SENGUPTA

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Deborah Cowling  
Notary Public

(NOTARIAL SEAL)

Exp. 12/2/03

Form PTO-1595

(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/2002)

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## PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Yongfei ZHU  
Louise C. SENGUPTAAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☐ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☒ Other Corrective document submission for  
assignment recorded at  
Reel/Frame 011718/0699.

Execution Date: \_\_\_\_\_

## 2. Name and address of receiving party(ies)

Name: PARATEK MICROWAVE, INC.

Internal Address: \_\_\_\_\_

Street Address: 6935 Oakland Mills RoadSuite NCity: Columbia State: MD Zip: 21045Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

09/734,969

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Robert P. LENARTInternal Address: Pietragallo, Bosick & GordonStreet Address: One Oxford Centre, 38th Floor301 Grant StreetCity: Pittsburgh State: PA Zip: 152196. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41).....\$ 40.00☐ Enclosed☒ Authorized to be charged to deposit account

## 8. Deposit account number:

500859

(Attach duplicate copy of this page if paying by deposit account)

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## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*Robert P. LENART

Name of Person Signing

Robert P. Lenart

Signature

Feb. 15, 2002

Date

Total number of pages including cover sheet, attachments, and documents: 6Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

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ASSISTANT SECRETARY AND COMMISSIONER  
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Washington, D.C. 20231

JULY 07, 2001

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DOC DATE: 02/27/2001

ASSIGNOR:

SENGUPTA, LOUISE C.

DOC DATE: 02/27/2001

ASSIGNEE:

PARATEK MICROWAVE, INC.  
6935 OAKLAND MILLS ROAD, SUITE N  
COLUMBIA, MARYLAND 21045

SERIAL NUMBER: 09734969  
PATENT NUMBER:

FILING DATE: 12/12/2000  
ISSUE DATE:

KIMBERLY WHITE, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

## ASSIGNMENT

WHEREAS, WE, **YONGFEI ZHU**, residing at 5275 Rivendell Lane, Suite 6, Columbia, MD 21044, a citizen of China, and **LOUISE C. SENGUPTA**, residing at 12 New Haven Boulevard, Warwick, MD 21912, a citizen of the United States of America, respectively, have invented certain improvements in: **ELECTRONIC TUNABLE FILTERS WITH DIELECTRIC VARACTORS** which is described in United States Patent Application Serial No. 09/734,969 which was filed on December 12, 2000; and

WHEREAS, **PARATEK MICROWAVE, INC.**, a corporation organized and existing under the laws of the State of Maryland, having its principal place of business at 6935 Oakland Mills Road, Suite N, Columbia, MD 21045, is desirous of acquiring an interest therein;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we hereby acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals, and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of the said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use, or vend the said inventions or improvements or any of them, and that we have the full right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to

us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal, and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the heirs, executors, administrators, successors, and/or assigns, as the case may be, of said assignee.

Executed on this 27<sup>th</sup> day of February, 2001

Yongfei Zhu  
YONGFEI ZHU

Louise C. Sengupta  
LOUISE C. SENGUPTA

State of Maryland :  
County of Howard : ss.

Before me, a Notary Public in and for the said County and State, personally appeared **YONGFEI ZHU** and **LOUISE C. SENGUPTA** who acknowledged that they are the persons who executed the foregoing assignment and acknowledged it to be their free and voluntary act and deed.

Witness my hand and notarial seal this 27<sup>th</sup> day of February, 2001.

Deborah Cowling  
Notary Public

(NOTARIAL SEAL)

Exp. 12/2/03

The dating stamp of the Patent Office  
on this card will be taken as an indication  
that the accompanying paper was filed.

Applicant(s) Zhu et al.

Notice of REcordation with  
attached assign. as recor-  
ded

Serial No. 09/734,969

REcordation cover sheet  
indicating lneeded correc-  
tion

Paper Dated Feb. 15, 2002

Copy of assignment with  
initialed corrextion

Atty's File No. PARA-25

Please charge dep. acct.#  
500859 \$40.00 fee.

RPL/bal

**RECORDATION FORM COVER SHEET  
PATENTS ONLY**

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

**Submission Type**☒ New☐ Resubmission (Non-Recordation)Document ID# ☐ Correction of PTO ErrorReel #  Frame # ☐ Corrective DocumentReel #  Frame # **Conveyance Type**☒ Assignment☐ Security Agreement☐ License☐ Change of Name☐ Merger☐ Other **U.S. Government**

(For Use ONLY by U.S. Government Agencies)

☐ Departmental File☐ Secret File**Conveying Party(ies)**☐ Mark if additional names of conveying parties attached

Name (line 1) YONGFEI ZHU

Execution Date  
Month Day Year  
2/27/2001Name (line 2) **Second Party**

Name (line 1) LOUISE C. SENGUPTA

Execution Date  
Month Day Year  
2/27/2001Name (line 2) **Receiving Party**☐ Mark if additional names of receiving parties attached

Name (line 1) PARATEK MICROWAVE, INC.

Name (line 2) 

Address (line 1) 6935 OAKLAND MILLS ROAD, SUITE N

Address (line 2) 

Address (line 3) COLUMBIA

MARYLAND

21045

City

State/Country

Zip Code

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)**Domestic Representative Name and Address**

Enter for the first Receiving Party only.

Name Address (line 1) Address (line 2) Address (line 3) Address (line 4) **FOR OFFICE USE ONLY**

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Mail documents to be recorded with required cover sheet(s) information to:  
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

**Correspondent Name and Address**

Area Code and Telephone Number

412.566.1252

Name Robert P. Lenart

Address (line 1) Eckert Seamans Cherin & Mellott, LLC

Address (line 2) 600 Grant Street, 44th Floor

Address (line 3) Pittsburgh, PA 15219

Address (line 4)

**Pages**

Enter the total number of pages of the attached conveyance document including any attachments.

# 4

**Application Number(s) or Patent Number(s)**

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

09/734,969

Patent Number(s)

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

**Patent Cooperation Treaty (PCT)**

Enter PCT application number  
only if a U.S. Application Number  
has not been assigned.

PCT PCT PCT  
PCT PCT PCT

**Number of Properties**

Enter the total number of properties involved.

# 1

**Fee Amount**

Fee Amount for Properties Listed (37 CFR 3.41): \$ \$40.00

Method of Payment:  
Deposit Account

Enclosed ☒

Deposit Account ☐

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:

# 02-2556

Authorization to charge additional fees:

Yes



No



**Statement and Signature**

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.*

Robert P. Lenart

Robert P Lenart

4/12/2001

Name of Person Signing

Signature

Date

## ASSIGNMENT

WHEREAS, WE, **YONGFEI ZHU**, residing at 5275 Rivendell Lane, Suite 6, Columbia, MD 21044, a citizen of China, and **LOUISE C. SENGUPTA**, residing at 12 New Haven Boulevard, Warwick, MD 21912, a citizen of the United States of America, respectively, have invented certain improvements in: **ELECTRONIC TUNABLE FILTERS WITH DIELECTRIC VARACTORS** which is described in United States Patent Application Serial No. 09/734,969 which was filed on December 12, 2000; and

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Executed on this 27<sup>th</sup> day of February, 2001

Yongfei Zhu  
YONGFEI ZHU

Louise C. Sengupta  
LOUISE C. SENGUPTA

State of Maryland :  
County of Howard : ss.

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Witness my hand and notarial seal this 27<sup>th</sup> day of February, 2001.

Deborah Cowling  
Notary Public

(NOTARIAL SEAL)

Exp. 12/2/03